DETAILED ACTION

Response to Arguments

Applicant's arguments, see page 10, filed 6/1/11, with respect to claims 11, 18, 23 and 24 have been fully considered and are persuasive. The 35 U.S.C. 112, first paragraph rejection of claims 11, 18, 23 and 24 has been withdrawn.

Applicant's arguments, see page 10, filed 6/1/11, with respect to claim 11 have been fully considered and are persuasive. The 35 U.S.C. 112, second paragraph rejection of claim 11 has been withdrawn.

Applicant's arguments, see page 10, filed 6/1/11, with respect to claim 24 have been fully considered and are persuasive. The 35 U.S.C. 101 rejection of claim 24 has been withdrawn.

Applicant's arguments filed 6/1/11 have been fully considered but they are not persuasive.

Regarding applicant's argument for claim 11, on page 11, that Takahashi does not teach transmitting driver-dependent data to a printer driver, examiner disagrees. Applicant states that the RIP sections (figure 14, items 1203a and 1203b of Takahashi) are not the same as a printer driver because "the RIP process generally takes place downstream from the driver in the printer hardware itself", however the RIP process is in the server of Takahashi (Figure 14 is a diagram of processes in server 102) and can be

interpreted as a part of the larger driver process mentioned in column 22, lines 17-37 and embodied by items 1201 - 1205 of figure 14. That is to say, the RIP processors 1203a, 1203b, etc. can be interpreted as mini-drivers that are a part of the main printer driver in server 102, these mini-drivers (module 1203 in combination with module 1204) meeting the exact definition of a printer driver given by applicant of "translating commands from a host application into printer-specific commands" (Takahashi specifically teaches in column 18, line 53 – column 19, line 7). Therefore Takahashi does teach the disputed limitation.

Regarding applicant's argument for claim 11, on page 12, that Takahashi does not teach creating spool data, examiner disagrees. In light of the explanation above for Takahashi teaching a printer driver, spool data is explicitly taught in the same manner as identified in the previous office action (i.e. column 29, lines 41-45).

Regarding applicant's argument for claim 11, on page 12, that Takahashi does not teach spool data consisting of capability requirements and driver-dependent data, examiner disagrees. Applicant appears to argue that the spool data of Takahashi (created by element 1202 of figure 14 and detailed in column 29, lines 41 -50) has, by the time it is spooled (i.e. converted and stored as a PDF to be further processed as described in column 29, lines 49-50) been somehow decoupled from "capability requirements" (i.e. metadata) that is taught by Takahashi in column 26, lines 22-26 as "destination setting data". Examiner completely disagrees with this characterization of Takahashi as the "metadata" entered by a user as per column 26 is clearly utilized later in the driver process (for example, by elements 1203 and 1204 to achieve appropriate

resolution [column 18, line 62] and a compatible format for an output device [column 19, line 2]), thereby making it inherent to the system of Takahashi that the data spooled in column 29, lines 41-50 still contains BOTH "capability requirements" and the actual printing data, otherwise the printing system would have no record of the previous user selections (figures 20 and 21 for example) and would be completely inoperable, this is not the invention of Takahashi. Therefore the limitation is taught and the argument is overcome.

Regarding applicant's argument for claim 11, on page 13, that Takahashi does not teach spooling of print data form multiple, parallel drivers back to the same print system component to which the original task was sent, examiner disagrees. Examiner notes that this language does not appear in the current claim, nevertheless this feature is taught by Takahashi. As previously discussed above, the RIPs 1203a, 1203b, etc. can be viewed as the parallel drivers that are preparing print data for various different output destinations and as specifically stated in column 29, lines 49-51, spool data is fed directly into the RIP drivers. The output from the RIP drivers are then further processed through elements 1204-1206 as detailed in column 19, lines 1-15, and since elements 1204-1206 (along with elements 1201-1203) are all a part of the same "print system component" (i.e. server 102) then the disputed limitation is taught.

NOTE: using the term "concurrent parallel playback" is not specific enough to impart the narrow scope of the statement argued against directly above.

All other arguments appear to be restatements of the arguments previously addressed above.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1) Claims 11-13, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S. Patent 5,287,194 by Lobiondo.

2) Regarding claims 11, Takahashi teaches a method for distributing a print task among a plurality of printing devices, said method comprising: receiving a print task at a print system component on a computing device (column 18, lines 33-41; print tasks are received at a server 102); receiving user input comprising a cluster printing selection at said print system component, wherein said selection identifies specific printing devices and communicates a specific quantity of printing devices (Column 22, lines 30-37; Figure 20; multiple printers for a cluster print can be selected); combining said print task with said cluster printing selection using said print system component on said computing device thereby creating driver-dependent data (column 26, lines 22-26; command data, including destination data is sent with image data thereby forming printing data that is driver-dependent [because destinations are already set and only the specific driver/RIP for a specific printer will work]); transmitting said driver-dependent data to a printer driver (figure 14; RIP processors 1203a, 1203b, etc. can be interpreted as mini-drivers

that are a part of the main printer driver in server 102, these mini-drivers [module 1203 in combination with module 1204] meeting the exact definition of a printer driver given by applicant of “translating commands from a host application into printer-specific commands” [specifically taught in column 18, line 53 – column 19, line 7]); creating spool data from said driver-dependent data (column 29, lines 41-45; “spool” data is temporarily stored pre-RIP) , using said printer driver, wherein said spool data consists of a print ticket specifying capability requirements (column 26, lines 22-26; “capability requirements” [such as size, scale, sheet data] are attached to all print data) of the print task and the driver-dependent data, and wherein said spool data is compatible as input to specific printer drivers corresponding to each of said specific printing devices (column 30, lines 1-25; spool data is compatible with the corresponding RIPer which in turn corresponds to a printer, i.e. color data for the color printer); determining, with said print system component on said computing device, portions of said spool data to be distributed to each of said specific printing devices (column 29, lines 21-40; data is distributed between MFPs 104 and 105); said distribution results in creation of distributed spool data portions and wherein said despooling further comprises concurrent parallel playback (column 25, lines 20-30; despooling to multiple printers is “simultaneous” and therefore is concurrent and parallel) of said spool data portions to said specific print drivers corresponding to each of said specific printing devices (column 18, lines 53-65; each RIP creates data for a specific printer), wherein each of said specific printer drivers converts said distributed spool data portions into device dependent data portions compatible with said corresponding specific printing devices

and each of said specific printer drivers spools said device-dependent data portions to said print system component (Column 30, lines 23-26; RIPed data is sent to specific devices depending upon selections, in this case color data goes to the color printer and b/w data goes to the b/w printer); despooling, with said print system component, said device-dependent data portions to said specific printing devices, wherein said despooling with said system component is performed in parallel (column 25, lines 20-30; despooling to multiple printers is “simultaneous” and therefore is parallel).

Takahashi does not specifically teach determining, with said print system component on said computing device, the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device’s output capacity.

Lobiondo teaches determining, with said print system component on said computing device, the output capacity of said specific printing devices; and despooling said spool data in accordance with said cluster printing selection wherein said despooling comprises distribution of said print task to said specific printing devices in substantial proportion to each of said specific printing device’s output capacity (column 4, lines 58-64; column 5, lines 45-62).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 11.

3) Regarding claim 12, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises querying a local printer through a system bus (column 4, lines 16-64).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 12.

4) Regarding claim 13, Takahashi teaches the method of claim 11 wherein said determining the output capacity comprises querying a network printer using a network communications protocol (Column 24, lines 19-37).

5) Regarding claim 15, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry.

Lobiondo teaches the method of claim 11 wherein said determining the output capacity comprises accessing a printer attribute registry (column 3, line 68 – column 4, line 3).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 15.

6) Regarding claim 16, Takahashi teaches the method of claim 11 wherein said print system component comprises a print processor (Figure 1).

7) Claims 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo) as applied to claim 11 above, and further in view of U.S. Patent 6,049,394 by Fukushima.

8) Regarding claim 14, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises querying a printer driver.

Fukushima teaches the method of claim 11 wherein said determining the output capacity comprises querying a printer driver (column 17, lines 1-9).

Takahashi and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be followed"(column 17, line 8). Therefore it would have been obvious to combine Takahashi to obtain the invention as specified in claim 14.

9) Regarding claim 17, Takahashi does not teach the method of claim 11 wherein said determining the output capacity comprises estimating the capability of some of said multiple printing devices.

Fukushima does teach determining the output capacity comprising estimating the capability of some of said plurality of printing devices (column 17, lines 1-9).

Takahashi and Fukushima are combinable because they are from the printer-networking field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Fukushima to estimate capabilities. The motivation for doing so would have been to determine "that the printing speed can be followed" (column 17, line 8). Therefore it would have been obvious to combine Takahashi with Fukushima to obtain the invention as specified in claim 17.

10) Claims 18, 19, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 6,985,245 by Takahashi, and further in view of U.S.

Patent 5,287,194 by Lobiondo, and further in view of U.S. patent 6,624,909 by Czyszczewski et al.

11) Regarding claims 18, 23 and 24, Takahashi (as modified above by Lobiondo) teaches all the limitations as disclosed above in the rejection of claim 11 with the exception of: a print system component, which resides on a computing device from which said print task originates.

Czyszczewski teaches a print system component, which resides on a computing device from which said print task originates (column 7, lines 54-56; print server can have a user interface for inputting print job selections).

NOTE: The secondary reference, Czyszczewski, is used to show that it is well known in the art to originate/initiate a print task from a server device (plainly taught in column 7, lines 54-57, GUI at the server can initiate a print job) and can be combined with the server of Takahashi to produce a server that can both originate a print task and perform all the listed processing of the claim elements

Takahashi and Czyszczewski are combinable because they are both from the printing field of endeavor.

It would have been obvious for one of ordinary skill in the art at the time the invention was made to combine Takahashi with Czyszczewski to add a user interface at a server. The motivation for doing so would have been “to select a document to print” (column 7, line 56). Therefore it would have been obvious to combine Takahashi with Lobiondo and Czyszczewski to obtain the invention as specified by claims 18, 23 and 24.

12) Regarding claim 19, Takahashi does not teach the method of claim 18 wherein said throughput comprises a printer's speed in PPM.

Lobiondo teaches the method of claim 18 wherein said throughput comprises a printer's speed in PPM (column 4, lines 58-64).

Takahashi and Lobiondo are combinable because they are both from the distributed printing field of endeavor.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Takahashi and Lobiondo to add determining a rate of printing speed. The motivation for doing so would have been to provide "optimum scheduling" (Column 2, line 41). Therefore it would have been obvious to combine Takahashi with Lobiondo to obtain the invention as specified by claim 19.

13) Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Czyszczewski) as applied to claim 18 above, and further in view of U.S. Patent 6,665,082 by Takeoka et al.

Takahashi does not teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity.

Takeoka does teach the method of claim 18 wherein output capacity comprises a determination of a printing device's disk storage capacity (Column 3, lines 11-25; Column 9, line 66 – Column 10, line 13).

Takeoka and Takahashi are combinable because they are from the same art of printer networking.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Takeoka to determine output capacity comprising determination of printing storage capacity. The motivation for doing so would have been to "determine the amount of image data included in a packet" (Column 3, line 18). Therefore it would have been obvious to combine Takahashi and Takeoka to obtain the invention as specified in claim 20.

14) Claims 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi (as modified by Lobiondo and Czyszczewski) as applied to claim 18 above, and further in view of U.S. Patent 6,891,632 by Schwartz.

15) Regarding claim 21, Takahashi does not teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an analysis of a printing device's rasterization pipeline (Column 3, lines 3-22; Column 10, lines 1-10).

Schwartz and Takahashi are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been

obvious to combine Takahashi with Schwartz to obtain the invention as specified in claim 21.

16) Regarding claim 22, Takahashi does not teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task.

Schwartz does teach the method of claim 18 wherein a determination of said output capacity comprises an evaluation of alternative rasterization methods and a selection of the fastest method for a specific print task (Column 3, lines 3-22; Column 10, lines 1-10; Column 3, lines 29-30).

Schwartz and Takahashi are combinable because they are from the same art of printing.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Takahashi by Schwartz to analyze a printing device's rasterization pipeline. The motivation for doing so would have been to "utilize available resources most effectively" (Column 3, lines 29-30). Therefore it would have been obvious to combine Takahashi with Schwartz to obtain the invention as specified in claim 22.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENJAMIN O. DULANEY whose telephone number is (571)272-2874. The examiner can normally be reached on Monday - Friday (10am - 6pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sudhanshu Pathak can be reached on (571)272-5509. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BENJAMIN O DULANEY/
Examiner, Art Unit 2625

/James A Thompson/
Acting SPE of Art Unit 2625